

**Department of Health  
Division of Radiation Protection  
Radioactive Materials Section**

**RHF – 1PG  
Application for  
Radioactive Material License  
- Portable Gauge**

**Instructions** – Complete all items in this application for a new license or the renewal of an existing license. Use Item 21 must be completed on all applications. Mail original to Washington State Department of Health in accordance with the directions contained in the application cover letter. Upon approval of this application, the applicant will receive a State of Washington Radioactive Material License issued in accordance with the general requirements contained in Washington State Department of Health, Radiation Protective Division, Radiation Control Regulations, and the Washington Nuclear Energy and Radiation Control Act, Chapter 70.98 RCW.

1a. NAME AND MAILING ADDRESS OF APPLICANT	1b. STREET ADDRESS(ES) AT WHICH RADIOACTIVE MATERIAL WILL BE STORED OR USED (if different than 1a) INCLUDE ZIP CODE
	1c. Will radioactive material be used at temporary job locations? <div style="text-align: right;"><input type="checkbox"/> Yes      <input type="checkbox"/> No</div>
2. PERSON TO CONTACT REGARDING THIS APPLICATION	
TELEPHONE NUMBER	
3. THIS IS AN APPLICATION FOR (check appropriate item) A. <input type="checkbox"/> New License *      B. <input type="checkbox"/> Renewal of License No. WN-_____	

4a. INDIVIDUAL USERS (Need not be specifically named but must be trained as indicated in 4b.)	4b. TRAINING AND EXPERIENCE (Check at least one) <input type="checkbox"/> Approved Certificate(s) of Training for Each User <input type="checkbox"/> Individuals trained in In-House Training Program (Detailed information attached)
5a. RADIATION SAFETY OFFICER (RSO) (Person designated as RSO - Include Training Certificates)  NAME _____  RSO FAX _____  RSO EMAIL _____	5b. DUTIES OF RADIATION SAFETY OFFICER (check one)  <input type="checkbox"/> Sign and date Attachment 'A' and return. OR  <input type="checkbox"/> Equivalent Duties Attached
6. RADIOACTIVE MATERIAL (elements and Mass number of each.)  A. _____  B. _____  C. _____	7. SEALED SOURCE MANUFACTURER AND MODEL NUMBER  A. _____  B. _____  C. _____
8. MAXIMUM ACTIVITY OF EACH SOURCE  A. _____  B. _____  C. _____	

9. DEVICE AND USE DESCRIPTION (Make lettering correspond to lettering in Items 6, 7, and 8 above.)

	MANUFACTURER OF DEVICE	MODEL NUMBER OF DEVICE	USE (Check all boxes that apply)	
A.			<input type="checkbox"/> surface moisture measurement <input type="checkbox"/> density measurement <input type="checkbox"/> depth moisture measurement	<div style="text-align: center;">in</div> <input type="checkbox"/> soil <input type="checkbox"/> construction materials
B.			<input type="checkbox"/> surface moisture measurement <input type="checkbox"/> density measurement <input type="checkbox"/> depth moisture measurement	<div style="text-align: center;">in</div> <input type="checkbox"/> soil <input type="checkbox"/> construction materials
C.			<input type="checkbox"/> surface moisture measurement <input type="checkbox"/> density measurement <input type="checkbox"/> depth moisture measurement	<div style="text-align: center;">in</div> <input type="checkbox"/> soil <input type="checkbox"/> construction materials

\*LICENSE FEE REQUIRED WITH NEW LICENSE APPLICATION (Complete Item No. 20)

11. MAINTENANCE OF GAUGES (check one)

- ☐ Applicant will not do any maintenance of gauges, but will return gauges to manufacturer for all maintenance, or contract with approved consultant for gauge maintenance. (Radiation detection instruments not required.)
- ☐ Applicant will do limited maintenance. (**Radiation detection instruments not required.**)
- ☐ Applicant will do full maintenance on gauges. (**Radiation detection instruments required.**)
- a. Names of individuals doing gauge maintenance:
1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
- b. Training certificates from gauge manufacturer to do maintenance on specific gauges (model number) attached for named individuals.
- c. Step by Step gauge maintenance procedures and radiation safety precautions attached.

12. RADIATION DETECTION INSTRUMENTS

List Radiation Detection Instruments in this space, if applicable.

MANUFACTURER	MODEL #	RANGE
_____	_____	_____
_____	_____	_____

13. CALIBRATION OF SURVEY INSTRUMENTS (Mandatory when requesting full maintenance programs) (check one)

- ☐ No radiation detection instruments possessed. N/A
- ☐ Calibration will be done annually and after each repair. (check one)
- ☐ Applicant will do own survey instrument calibrations. (attach methods and procedures)
- ☐ Calibration will be done by an authorized calibration service agency.

Name, Address, and License Number of the initial or current Calibration Service:

Name \_\_\_\_\_  
Address \_\_\_\_\_  
License Number \_\_\_\_\_

14. PERSONNEL MONITORING (check one)

- ☐ Beta-Gamma or Gamma only
- ☐ Gamma-Neutron dosimetry
- ☐ Neutron dosimetry

Badges must be exchanged at least quarterly. Supplier must be NVLAP certified. (continued next column)

14. PERSONNEL MONITORING (continued)

Name and address of initial or current Dosimetry Supplier:

Name \_\_\_\_\_  
Address \_\_\_\_\_

15. FACILITIES AND EQUIPMENT

- ☐ Facilities and Storage Diagram Attached (required)

16. RADIATION PROTECTION PROGRAM (check one)

- ☐ Sign and date Attachment 'B' and return, or
- ☐ Equivalent Procedures Attached

17. EMERGENCY PROCEDURES (check one)

- ☐ Complete, sign and date Attachment 'C' and return, or
- ☐ Equivalent Procedures Attached  
(including copy of shipping paper)

18. LEAK TEST PROGRAM (check one)

- ☐ Applicant will contract with the following approved outside consultant to do leak tests.

Name \_\_\_\_\_  
Address \_\_\_\_\_

- ☐ Applicant will do leak tests using approved leak test kit, mailing leak tests to kit manufacturer for counting.

Manufacturer name, address

Name \_\_\_\_\_  
Address \_\_\_\_\_

- ☐ Will do own leak test including counting. Detailed procedures attached.

19. DISPOSAL OR TRANSFER

- ☐ Nuclear Gauge(s) containing radioactive sealed sources will be returned to manufacturer; or transferred to an authorized licensee, or transferred to a licensed waste broker.

20. LICENSE FEE REQUIRED (See Chapter 246-254 WAC) and annually thereafter.

a. LICENSE FEE CATEGORY 31 (Portable Gauge)

b. LICENSE FEE ENCLOSED \$ \_\_\_\_\_  
(see cover letter to determine amount of fee)

**ITEM 21 – CERTIFICATE (This item must be completed by management)**

The applicant and any official executing this certificate on behalf of the applicant named in Item 1a certifies that this application is prepared in conformity with Washington State Department of Health, Division of Radiation Protection Regulations, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

\_\_\_\_\_  
(Type or print name of certifying official)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title of certifying official)

Date \_\_\_\_\_

## **ATTACHMENT A**

### **DUTIES OF THE RADIATION SAFETY OFFICER FOR PORTABLE GAUGE LICENSE**

1. To assure that radioactive materials possessed under the license conform to the materials listed on the license.
2. To assure that use of the devices, particularly in the field, is only by individuals specifically authorized by the license.
3. To assure that all users wear personnel monitoring equipment, such as film badges or thermoluminescent dosimeters (TLD's) when required.
4. To review all personnel monitoring reports, to alert the radiation worker in the event of a high or unusual exposure, to notify Division of Radiation Protection personnel as required of the high or unusual exposure, and to investigate all such unusual exposures and take any necessary corrective action to prevent other such high exposures.
5. To assure that gauges are properly secured against unauthorized removal at all times when they are not in use.
6. To serve as a point of contact and give assistance in case of emergency (gauge damage in the field, fire, theft, etc.) to assure that proper authorities, (for example local police), and Division of Radiation Protection personnel are notified promptly in case of accident or damage to gauges.
7. To assure that the terms and conditions of the license, such as periodic leak tests, are met and that the required records, such as personnel exposure records, leak test records, etc., are periodically reviewed for compliance with Department regulations, requirements, and license conditions.

APPROVED BY: \_\_\_\_\_ DATE \_\_\_\_\_  
(Applicant)

## ATTACHMENT B

### RADIATION SAFETY PROGRAM FOR PORTABLE GAUGE LICENSE

The following radiation protection program will be followed at all times. **A copy of these procedures shall be maintained in the licensee's radioactive materials license file, and another copy in the shipping case of each nuclear gauge at all times.**

1. Only certified operators shall use, or supervise the use of, nuclear gauges.
2. All unauthorized persons shall be kept out of the operating area. A minimum suggested distance is five meters or 15 feet.
3. The licensee shall not open a source containing radioactive material.
4. No one shall be permitted to touch or directly handle the unshielded source.
5. The operator shall never unnecessarily be exposed to the unshielded source.
6. The nuclear gauge source shall be locked in the closed, safe, off, or stored position when not in use.
7. Security of the nuclear gauge shall be maintained at all times. The gauge shall be returned to the carrying case when not in use. Nuclear gauges shall never be left unattended, except when in storage in the licensed storage facility in the designated locked storage area or in a locked vehicle out of sight so as to minimize the attractive nuisance value. A gauge stored out of the carrying case must meet three levels of security to prevent an unauthorized person from removing the gauge from the storage location.
8. Only licensed operators shall have or carry keys to the nuclear gauges or to their locked storage areas. The Radiation Safety Officer shall maintain control of all keys.
9. If the operator detects any malfunction in the shutter or other part of the nuclear gauge, the operator shall immediately notify the Radiation Safety Officer.
10. The licensed operators shall keep the Radiation Safety Officer informed of the location of the radioactive sources at all times. A utilization log shall be maintained at the secondary and/or primary storage location (not carried with the gauge into the field) including, but not limited to, the following information:
  - a. Device manufacturer
  - b. Model number,
  - c. Serial number,
  - d. User,
  - e. Date(s) of use, and
  - f. Location(s) of use.
11. When required, licensed operators and other persons working in the proximity of the nuclear gauge(s) when they are being transported or used shall wear appropriate personnel dosimeters, such as film badges or thermoluminescent dosimeters (TLD's). Each worker shall be assigned is/her own dosimeter. On no occasion shall a person wear a dosimeter assigned to another individual.
12. Personnel dosimeters shall be kept in a cool, dry, low radiation background when not in use.

(continued)

**ATTACHMENT B (Continued)**

**RADIATION SAFETY PROGRAM  
FOR PORTABLE GAUGE LICENSE**

13. The personnel dosimeter shall be processed immediately if there is any indication of a high or unusual exposure, or if the dosimeter is damaged in any way. The Radiation Safety Officer shall investigate all high or unusual exposures, and take corrective action if necessary to prevent other such high exposures. Notification procedures shall be in accordance with WAC 246-221-250 and WAC 246-221-260.
14. Exposure records shall be kept in a manner which includes names, dates of birth, and social security numbers for all dosimetry users. Each entry shall be for a period of time not to exceed one calendar quarter. Department form RHF-5 or equivalent may be used.
15. The company shall maintain on file indefinitely the training certificates and exposure records of employees and past employees, and supply such employees with exposure date (on request) at termination of employment or hiring by another radiation work employer.
16. The nuclear gauges shall be securely restrained within the transportation vehicle and away from the passenger compartment to prevent theft or loss in an accident and to keep personnel exposure to a minimum. Metal clamps, chains, "bungee" cord, or bars will be used.
17. Transportation activities shall be carried out in accordance with the requirements of 10 CFR Part 71 and Department of Transportation regulations (49 CFR Parts 100 to 199).
18. Radiation labels or placards (if any) shall be removed from vehicles when not actually transporting the nuclear gauge(s) to avoid confusion should an accident occur to the vehicle when it does not contain the gauge(s).
19. The Radiation Safety Officer shall maintain a current copy of the following along with the nuclear gauge license: State of Washington Department of Health "Rules and Regulations for Radiation Protection." An updated copy of Attachment 'C' shall also be carried with each nuclear gauge.
20. The storage cabinet or door to the storage area shall be posted with a CAUTION RADIOACTIVE MATERIALS sign. Properly completed Form RHF-3, "Notice to Employees," shall be posed in a conspicuous place wherever individuals work in or frequent any portion of a restricted area. Licensed operators shall be responsible for posting the above at all field storage locations.
21. Leak testing of the sealed sources is required at six month intervals, or at the manufacturer's specified interval, and shall be performed in the manner designed in the application form. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Department.

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
(Applicant)

## ATTACHMENT C

### EMERGENCY PROCEDURES FOR PORTABLE GAUGE LICENSE

If an emergency occurs, such as loss, theft, fire, explosion, or vehicle accident in which the nuclear gauge may be damaged or lost, the operator shall follow these procedures:

1. **SECURE THE AREA AROUND THE ACCIDENT.** KEEP UNAUTHORIZED PERSONS AWAY. ALERT PEOPLE IN VICINITY OF THE PRESENCE OF RADIOACTIVITY AND A POSSIBLE HAZARD.
2. DO NOT LEAVE THE SITE. Send a helper or on-looker to notify the following:
  - a. Radiation Safety Officer, whose phone numbers are:  
Work \_\_\_\_\_ Home \_\_\_\_\_
  - b. Local Police \_\_\_\_\_
  - c. Local Fire Department (where applicable) \_\_\_\_\_
3. The Radiation Safety Officer in turn must immediately notify State of Washington Radiation Emergency Response **206 – 682 – 5327**, which is **206 N-U-C-L-E-A-R**, and other local authorities as indicated. Identify the call as a **RADIATION EMERGENCY** and give the following information:
  - a. Your name
  - b. Agency or firm
  - c. Location of incident
  - d. The telephone number where you can be reached

Upon contact with a State Radiation Emergency Response Officer, report the following information.

- a. What happened
  - b. Date and time emergency began
  - c. Are there any injured people
  - d. Actions taken
  - e. Emergency agencies present on scene or notified
  - f. Present status
4. The operator should inform emergency workers of the radiation hazard possibly existing, and should help them keep the area secure and explain to the emergency personnel of the radioactive device, and the extent of the possible hazard. **In no case should the operator leave the site** until qualified experts arrive, unless, of course, the operator is seriously injured or incapacitated, and must be removed from the site by emergency personnel for necessary medical treatment.

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
(Applicant)

## SHIPPING PAPER

OWNER OF DEVICE; \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE NUMBER; \_\_\_\_\_

**24 Hour Emergency Phone Number**    206 NUCLEAR    (206 – 682 – 5327)

DEVICE MANUFACTURER: \_\_\_\_\_

DEVICE MODEL: \_\_\_\_\_

ISOTOPE(S): \_\_\_\_\_

ACTIVITY: \_\_\_\_\_ MBq. / \_\_\_\_\_ MBq.

( \_\_\_\_\_ ) mCi / ( \_\_\_\_\_ ) mCi

## LABELING

Shipping Name: RQ – Radioactive Material, Special Form, N.O.S.

Hazard Class: Radioactive Material

Identification Number: UN3332

DOT Label: ☐ Yellow II or ☐ Yellow III (*Placards Required*)

Transport Index (TI): \_\_\_\_\_

This is to certify that the above-named materials are properly classified, described, packaged, and marked and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation.

Signed: \_\_\_\_\_ Title: \_\_\_\_\_

*This document and an Emergency Procedure **must** be carried in the transport vehicle (within arm's reach of driver) while device is being transported on **any** public roadway by **any** person.*

ATTACHMENT D

PORTABLE GAUGE  
UTILIZATION/TRANSFER LOG

LICENSEE: \_\_\_\_\_  
LICENSE NO.: \_\_\_\_\_  
GAUGE MFG. & MODEL: \_\_\_\_\_  
GAUGE S/N: \_\_\_\_\_

(NOTE: THIS RECORD IS TO BE MAINTAINED AT THE PRIMARY/SECONDARY STORAGE LOCATION(S) AS STATED IN LICENSE. **DO NOT CARRY WITH THE GAUGE.**)

DATE OUT	TO: USE LOCATION OR TRANSFERRED	DATE IN	SIGNATURE